Moving from Data to Action:

The Iowa DHS Quality Assurance & Improvement Methodology

The Iowa DHS Quality Assurance & Improvement effort focuses on ensuring the quality and effectiveness of services to children and families by:

- Establishing desired outcomes and statements of expected performance;
- Monitoring actual performance and outcomes and comparing them with expectations for performance and outcomes;
- Analyzing discrepancies between desired and actual performance; and
- Making modifications and improvements in the system of services based on the above results to continuously improve quality and outcomes.

The life blood of the QA&I methodology is the data, information, and knowledge that flows through the DHS service provision system at various levels and between different levels. A brief discussion of each of these follows.

Data – What are the numbers?

Data consist of representations of objects, people, events or their properties. They are quantified (measurable) facts that we know through observation of people, processes or instruments. For example, an interview with someone can produce such data as his/her age, gender, or marital status. The dashboard of a car contains data such as the speed at which the car is traveling, the temperature of the engine, or the level of oil – the DHS Digital Dashboard quantifies performance in specific CFSR PIP outcome areas.

The QA&I System relies on data concerning those who are served by DHS' services and its provider agencies, and the services that children and families receive. These data are of several types and may include:

- Administrative data contained in statewide databases (ex. STAR and FACS) used in conjunction with the delivery of services, the Federal Child and Family Services Review Program Improvement Plan (CFSR PIP) process, and AFCARS or NCANDS reporting requirements;
- Custom databases created by the Bureau of Quality Assurance & Improvement (formerly the Bureau of Results-Based Accountability) to monitor overall child welfare services and the impact of the Iowa Redesign effort;
- Data obtained by periodic or ad hoc surveys of clients, providers, staff and community stakeholders; and
- Data derived from Quality Service Reviews and other case reading activities.

The specific data elements collected are driven by Federal guideline and requirements, State compliance monitoring requirements, and State and Service Area initiatives aimed at improving the quality, delivery and outcome of services. Data are used to answer questions about individual cases ("what happened?", "when did it happen?", "who was involved?", "what service was provided?" and/or "what were the results or impact?"), or about an aggregation of cases ("how many?" or "how often?").

Information – What are the numbers telling us?

Information is derived from data that have been processed into an interpretable form. It is used in making assumptions, judgments, and for supporting decisions, by answering such questions as:

- How did we do this year compared with last year?
- How close did we come to reaching the desired outcome?
- How did our performance compare with that of other Service Areas?

A good example of the transformation of data to information is DHS' Digital Dashboard, developed by the Bureau of Quality Assessment and Improvement. The Dashboard takes administrative data and uses it to monitor the performance of the DHS child welfare system with respect to the six (6) Federal CFSR PIP measures. Information is made available for different Service Areas and different levels within each area – Case, Worker, and Supervisor levels.

Knowledge – What do we know, and what do we need to know?

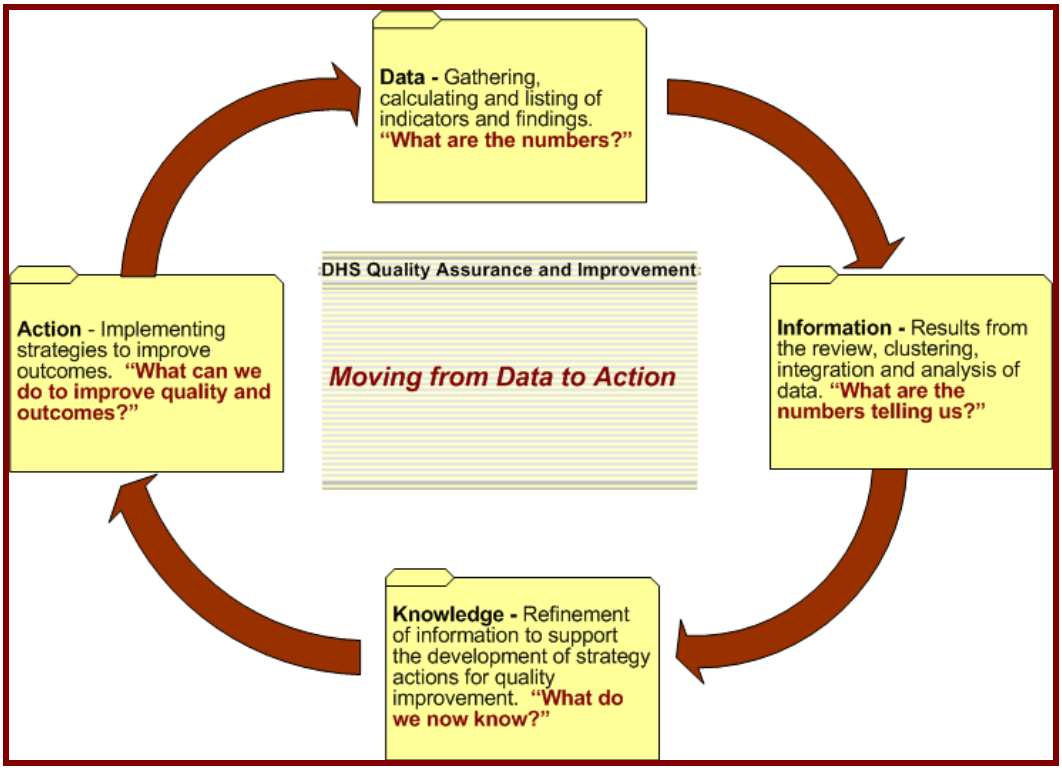
Information provides us with a description of the status of a situation, but it does not tell us how to change the situation. Deciding how to address underperformance in a system or make changes in a program requires knowledge. For example, consider the objective of reducing the recurrence of child abuse or neglect by 10%. The information contained in the Digital Dashboard can tell us whether the objective is being met across the State or in individual Service Areas. It can tell us in which Service Area action should be taken to improve the results. But information alone can't always tell us how to improve the recurrence rate. For that, further inquiry may be needed to determine whether there are differences in practice across Service Areas, or differences in how recurrence is measured, or differences in how the objective is determined. Thus, knowledge begins by identifying "what do we now know?" and then asking "what more do we need to know?" before we can identify potential actions for improving performance.

Moving from Data to Action

The ultimate purpose of the QA&I System is the improvement of the quality and outcome of services to children and families. Therefore, we are concerned with a systematic way to move from data to information to knowledge to action. In the figure shown below, an overarching set of objectives (such as the CFSR PIP objectives) along with other system

requirements leads to the identification of relevant operational data which are gathered, stored, tracked and reported on a periodic schedule.

From Data to Action



Using our example of the CFSR PIP objectives, specific data will be needed in order to measure the time that children spend in foster care prior to finalized adoptions. These data are processed to produce performance and outcome information and reports that are made available to decision makers and other stakeholders – i.e. QA Committees; Team Implementation; SBT; and the Bureau of Quality Assurance & Improvement.

Reviewing and the initial analysis of the data provides information and can lead to questions, such as "Why is the time in foster care to adoption decreasing in some Service Areas while remaining stable, or even increasing in others?" This in turn can lead to further inquiry into clarity of policies and procedures, differences in practice, differences in available resources, effectiveness of training; and/or efficacy of decision support and validation tools. The inquiry may then produce knowledge about how cases are handled differently in different Service Areas and why differences in outcomes exist.

Finally, this knowledge can be used to improve the clarity of policies; strengthen training and supervision efforts; improve tools that support decision; and/or design strategies, practices and interventions aimed at reducing the time in foster care to adoption.

In some situations, there may be variations in this basic model. First, there may be situations where Action comes first, followed by Data, Information, and Knowledge. New State or Federal legislation, for example, may dictate that a new policy or a new program be implemented or new procedures be put in place before there has been time to study the intervention or before the relevant data even exist. In this situation, an action occurs first and then triggers the collection of data and the processing of information which may ultimately lead to modifying the action.

Second, there may be situations where the information by itself is sufficient to lead to action, such as when reaching a particular threshold automatically triggers some remedial action to be taken. In these situations, knowledge is not necessary prior to action, although it may be needed to prevent the situation from occurring again.

Finally, while knowledge can often be obtained by analysis of the available information, at other times, it can best be obtained from direct experience, or from others who obtained knowledge from their experience. This is especially true in cases where little is known about "what works" or where there are competing theories. For example, knowledge about how to reduce recurrence may not come simply from analyzing the available data and information. It may have to come from the experience of taking action and then looking at the results. In these situations, action precedes knowledge. This is the "ready-fire-aim" approach that is critical when action is needed and there are some solid assumptions of possible improvements. Based upon the impact of the action – as measured through the QA&I effort – modifications are made to refine the action.